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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,203	06/25/2003	Wesley B. Dong	100/16101	4361

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EXAMINER

TURK, NEIL N

ART UNIT PAPER NUMBER

1743

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/606,203

Applicant(s)

DONG, WESLEY B.

Examiner

Neil Turk

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 21-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-20 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/17/2004</u> .   | 6) <input type="checkbox"/> Other: ____.                                    |

**DETAILED ACTION**

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-10, drawn to a method of reducing evaporation from one or more wells of at least a first multiwell plate, classified in class 422, subclass 42.
- II. Claims 11-20 and 27, drawn to a method for reducing evaporation from one or more wells of at least a first multiwell plate configured to be placed in a stacked configuration with at least one second multiwell plate, classified in class 436, subclass 48.
- III. Claims 21-26, drawn to a multiwell plate, classified in class 435, subclass 305.1.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are directed to related processes. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, invention I has a materially different design from that of invention II. Invention I only requires one multiwell plate, whereas invention II calls for at least two multi-well plates that are configured to be placed in a stackable and a flange for removably receiving the first multi-well plate.

Inventions I and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus of invention III can be used to practice another materially different process, such as holding and assaying samples within a multiwell plate.

Inventions II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus can be used to practice another materially different process, such as holding and assaying samples within a multi-well plate.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Andrew Filler on June 14<sup>th</sup>, 2006 a provisional election was made with traverse to prosecute the invention of II, claims 11-20 and 27. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-10 and 21-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: what method step(s) allow(s) the ridge to be filled once a second plate is stacked on top of the first multiwell plate; the stacking thereby blocking access to the first multiwell plate.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11-14 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (5,587,321) in view of Coffman (2001/0001644). Smith discloses a moated tissue culture plate. Smith discloses that a culture plate having circular culture wells includes a moat surrounding the cluster of wells and the moat including a head space therebetween (abstract). Smith also discloses that when the moat is filled with water or buffer solution, the moat maintains temperature uniformity among the wells and maintains humidity in the head space therebetween, preventing non-uniform evaporation from the wells and reducing evaporation overall (abstract, col. 2, fig. 1). Smith also discloses that apparatus 10 includes a base 12 and a cover 14; base 12 includes a plurality of tubular wells 16 and chamber 18, defined by top wall 20, side walls 22, base wall 24 and bottom well wall 26 (lines 10-15, col. 2, fig. 1-4). Smith also discloses that bottom well wall 26 functions as a common wall for enclosing well bottoms 34 (lines 20-22, col. 2). Smith also discloses that top wall 20 surrounds the cluster of wells 16 and presents an upstanding closure ridge 38 for engaging cover 14 (lines 23-25, col. 2, fig. 1-4). Smith also discloses that side walls 22 are configured to present surrounding shelf 42 with base extension 44 (lines 27-29, col. 2). Smith also discloses that a plurality of liquid dampening baffles 46 couple with inner surfaces of side walls 22, and there is a gap 48 between the bottom of each baffle and base wall 24 for allowing liquid to flow therethrough, and baffles 46 serve to strengthen the overall structural integrity of base 12 (lines 30-34, col. 2). Smith also discloses that cover 14 includes a top panel 50 and downwardly extending, side panels 52, and the lower face of top panel 50 includes a guide ridge 54 configured to receive closure ridge 38 in

registration therebetween when cover 14 is placed on base 12 (lines 35-40, col. 2).

Smith further discloses that a solution such as water, buffer or other liquid is then placed in chamber 18, and the solution flows through chamber 18 by way of gaps 48 around the periphery of the wells and also under the bottom well wall 26 (lines 50-55, col. 2).

Smith also discloses that base wall 24 is removable in an embodiment so that base 12 can be placed in a plate reader (lines 58-60, col. 2). Smith does not disclose a second

multiwell plate stacked on top of the first multiwell plate. Coffman discloses a device

and method for processing that includes a first multiwell plate stacked atop a second

multiwell plate. Coffman discloses a first multiwell plate 10 comprises x wells and a

second multiwell plate with y wells, y greater than or equal to x (paragraph 0007, fig. 1-3

and 4-22). Coffman also discloses that the outlets at the lower surface of this first

multiwell plate are arrayed to register with corresponding inlets of x wells of the y wells

of the second multiwell plate when the first multiwell plate is stacked on the second

multiwell plate (paragraph 0007). Coffman also discloses alignment means for aligning

the x wells of the first plate to the x' wells of the second plate (paragraph 0007).

Coffman also discloses that drip directors 16 register with and depend into

corresponding wells 23 and 23' when the plates are stacked (paragraph 0055, fig. 8-9).

Coffman also discloses an alignment guide in figure 16, shown in the corner, around a

surface of the top and bottom plates to receive and register the two plates in a stacked

manner (paragraph 0030, fig. 16). Coffman discloses that is desirable to transfer

samples from a first well plate to a second well plate to save significant time and

processing complexity by being able to directly transfer between two different multiwell

plates (paragraph 0010). Coffman also discloses that with such an apparatus for transferring between two multiwell plates, pipetting apparatuses are unnecessary to accomplish the transfer (paragraph 0010). Coffman further discloses that is desirable to transfer fluid from a 96-well plate to a 384-well plate in operations such as transfer of crude plasmid preparation after cell lysis and precipitation of proteins and genomic DNA (paragraph 0046). It would have been obvious to modify the Smith device to include a second multiwell plate such as taught by Coffman in order to provide an apparatus with means for transferring samples from a first multiwell plate to a second multiwell plate while saving time and processing complexity of the samples without the need for pipetting.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Coffman as applied to claims 11-13 and 27 and in further view of Guhl (4,657,867). Smith and Coffman have been discussed above. Smith and Coffman do not disclose spaced-apart ribs, which extend upwardly from the ridge. Guhl discloses a multiwell tissue culture assembly, which includes lid pads 38 provided at each corner of the lid that rest atop rim 27 of the plate and support the lid in proper position during use of the multiwell tissue culture assembly (lines 30-34, col. 4, fig. 3). It would have been obvious to modify the Smith/Coffman device to include the lid pads such as taught by Guhl in order to provide enhanced stability and support in the assembly.



Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Coffman as applied to claims 11-13 and 27 and in further view of Inoue (5,955,352). Smith and Coffman have been discussed above. Smith and Coffman do not disclose that the ridge contains a layer of a wicking material, such as felt, or that the ridge contains a layer of absorbent material. Inoue discloses an instrument for chemical and microbiological tests, which includes a sample container, a plurality of sample-holding portions, and a liquid-absorbent body 2 (abstract, fig. 1 and 16). Inoue discloses that materials used for the liquid-absorbent body include water-absorbing paper, fibrous materials having water-absorbing properties (absorbent material), such as cotton fibers (wicking material and felt), polymeric fibers, and many other materials (lines 42-67, col. 11; lines 1-34, col. 12). Inoue also discloses that the liquid-absorbent material effectively absorbs excess liquid accommodated in the sample containers, except that to be retained in the sample-holding portions (lines 34-38, col. 12). It would have been obvious to modify the Smith/Coffman device to include a layer of wicking material or absorbent material on the ridge such as taught by Inoue in order to provide a layer, which will increase the surface area of the liquid in the moat and increase evaporation more effectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil Turk whose telephone number is 571-272-8919. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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